

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Jude Sauer)	
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SERIAL NUMBER:	10/056,473)	Group Art Unit: 3731
)	
FILED:	January 23, 2003)	Examiner: Michele L. Bachman
)	
FOR:	VASCULAR HOLE CLOSURE)	Confirmation No. 5120
)	

APPEAL BRIEF

(1) REAL PARTY IN INTEREST

The real party in interest is LSI Solutions, Inc.

(2) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

(3) STATUS OF CLAIMS

Claims 5-10, 12, 13, 20, 21-39, 42-45, 51-58, 63-73 and 80-88 are currently pending in the present application. Claims 1-4, 11, 14-19, 22, 40-41, 46-50, 59-62, 74-79 have been cancelled. Claims 63-73 and 80-88 have been withdrawn. A Final Office Action issued on November 27, 2009, finally rejecting claims 5-10, 12, 13, 20, 21, 23-39, 42-45 and 51-58. Applicant appeals from the final rejection of claims 5-10, 12, 13, 20, 21, 23-39, 42-45 and 51-58.

(4) STATUS OF AMENDMENTS

The claims have not been amended subsequent to the Office Action of November 27, 2009.

(5) SUMMARY OF THE CLAIMED SUBJECT MATTER

Pursuant to MPEP §1205, a concise explanation of the subject matter defined in each of the independent claims involved in the appeal is provided with reference to the specification and drawings. It is understood that the reference to the specific embodiments in the specification and drawings is provided for compliance with MPEP §1205 and is not intended to limit the scope of the claims.

Independent claim 12 of the present application claims:

12. A surgical apparatus for closing a wound, the surgical apparatus comprising:

a tongue member having a distal section insertable into a wound; and

a face opposing the distal section of the tongue member and separated from the distal section of the tongue member by a gap, the face having an area large enough to impede further insertion of the apparatus into the wound, further comprising a guide wire tube disposed through an elongate body assembly, a distal end of the guide wire tube being disposed adjacent a distal opening of the tongue member.

Independent claim 12 relates to a surgical device that includes a tongue member 36 with a distal portion that is insertable into a wound. The device has a guide wire tube 82 that permits a guide wire to be fed therethrough. The distal end of the guidewire tube 82 is adjacent to a distal opening 39 of the tongue member. See Figures 4A and 5 and paragraph 0049 for an example. The device of claim 12 also includes a gap having a face that impedes insertion of the device into the wound (for facilitating placement). See Figures 4A and 4B and paragraph 50.

Independent claim 51 of the present application claims:

51. A surgical apparatus comprising a tip, the tip having a longitudinal axis, a distal end, and a proximal end, the tip further comprising:

a window for receiving tissue;

a first wall at a proximal end of the window, the first wall disposed at an angle to the longitudinal axis, the angle selected to impede insertion of the tip into a wound; and,

a second wall disposed at an angle to the longitudinal axis at a distal end of the window, further comprising a ferrule holder, the ferrule holder including the second wall, further

comprising a tongue extending between the first and second walls, wherein the ferrule holder includes projections receivable within grooves of the tongue for retaining the ferrule holder on the tongue.

Independent claim 51 relates to a surgical device having a tip that includes a window 15 for receiving tissue, wherein one wall 48 of the window is disposed at an angle relative to the device's longitudinal axis, which angled wall impedes insertion of the device (to facilitate positioning). A second wall 46 of the window is disposed at an angle and includes a ferrule holder 40 on the tongue. See Figures 4A and 4B and paragraphs 0047-0049.

Independent claim 53 of the present application claims:

53. A tip for a surgical apparatus, the tip having a longitudinal axis, a distal end, and a proximal end, the tip further comprising:

a window for receiving tissue;

a first wall at a proximal end of the window, the first wall disposed at an angle to the longitudinal axis, the angle selected to impede insertion of the tip into a wound; and,

a second wall disposed at an angle to the longitudinal axis at a distal end of the window, further comprising a tongue having an opening through a portion of a distal tongue section, a base of the tongue forming a bottom portion of the window.

Independent claim 53 relates a surgical device that includes a tongue member 36 with a distal portion that is insertable into a wound. The device has a guide wire tube 82 that permits a guide wire to be fed therethrough. The distal end of the guidewire tube 82 is adjacent to a distal opening 39 of the tongue member. See Figures 4A and 5 and paragraph 0049 for an example. The device of claim 12 also includes a gap having a face that impedes insertion of the device into the wound (for facilitating placement). See Figures 4A and 4B and paragraph 50.

(6) GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The following issues are drawn from the last Final Office Action on the merits dated November 27, 2009:

(A) Claims 12, 13, 53, 54 56 and 58 have been rejected under 35 USC 102(b) as being anticipated by Sauer et al. (US Patent 5,431,666).

(B) Claims 51 and 5-10, 20, 21, 23-39, 42-45 have been rejected under 35 USC 103(a) as being unpatentable over Sauer '666.

(7) ARGUMENT

(A) Claims 12, 13, 53, 54 56 and 58 have been rejected under 35 USC 102(b) as being anticipated by Sauer et al. (US Patent 5,431,666).

In relevant part, claims 12-13, 53-56 and 58 represent an improvement (by the same inventor) over the device of the '666 patent by inclusion of a guide wire port on a distal portion of the device. Thus, where the '666 device must be inserted and placed via cannula, the presently claimed device may be threaded onto an existing guide wire that will direct the device into place.

While, the Examiner points to item 40 in the '666 patent, indicating that this is a guide wire channel, we must note that this is instead a needle channel within the body of the device, and not a distal guidewire channel.

The Examiner indicates that the cavities for the ferrule holder or the proximal needle holders satisfy this limitation. However, it is noted that the openings for claims 12 and 53 are distinctly recited as separate from the ferrule holder cavity, whereas the needle holes of the '666 patent are proximal. The presently claimed recitation with regard to the opening indicates that the opening goes through the tongue (i.e., it is an opening rather than a cavity, which makes sense

considering that the specification describes use for an opening as allowing a guidewire to be threaded therethrough to facilitate placement).

Likewise, there is no guidewire tube in the '666 patent at all. Again, if a guidewire were inserted anywhere in a cavity of the '666 device, it still could not go through the device (and thus, act as a guidewire).

The Examiner's proposed rejection completely ignores the fact that the needle channel cannot also incorporate a guide wire simply because it has an interior diameter (which is filled by a needle that must reciprocally move therethrough. Because the Examiner has not shown that the claim limitations are taught or described by the prior art, the rejection is in error and should be withdrawn.

(B) Claims 51 and 5-10, 20, 21, 23-39, 42-45 have been rejected under 35 USC 103(a) as being unpatentable over Sauer '666.

Claims 51, 5-10, 20-21, 23-39 and 42-45 have been rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,431,666 to Sauer et al.

As was noted above, the present claims represent improvements (by the same inventor) over the device of the '666 patent. Claim 51 provides an improved securing mechanism for ferrule holders by, rather than using glues or simple friction fits, provides projections and grooves to better secure the ferrule holder on the tongue. This is not so much a matter simply providing separable components where they were once integral. Rather, this solves a real problem with regard to the possibility of the ferrule holders coming loose during surgery.

The Examiner has not cited to any prior art that teaches or describes projections or grooves on ferrule holders on such a tongue member to better secure a ferrule in the tongue member. The '666 patent completely fails to teach a ferrule holder including projections receivable within grooves of the tongue for retaining the ferrule holder on the tongue. Contrary to the Examiner's contentions, Figure 2 of the '666 patent shows nothing of the sort (the Applicants note that all of these issues, including the identical rejections (actually, the Examiner

has since withdrawn additional prior art as part of the rejections) addressed both here and above, were first addressed in an appeal brief dated May 13, 2008, the entire contents of which are incorporated herein by reference). The '666 patent does not describe any projections or grooves, and no projections are received in grooves to hold the ferrule holder on the tongue.

For these reasons, the rejections are improper and should be withdrawn.

CLAIMS APPENDIX

1-4. (Cancelled)

5. A surgical apparatus in accordance with claim 51, the surgical apparatus further comprising:

an elongate body assembly connecting a body portion to the tongue member, and further comprising first and second elongate needles positioned at least partially within the elongate body assembly, said first needle being longitudinally movable by a first lever and said second needle being longitudinally movable by a second lever.

6. The surgical apparatus of claim 5 wherein said first and said second levers are spaced apart less than 180 degrees from each other.

7. The surgical apparatus of claim 5 wherein said first and said second levers are not diametrically positioned.

8. The surgical apparatus of claim 5 wherein the first and second elongate needles are eccentrically positioned within the elongate body assembly.

9. A surgical apparatus in accordance with claim 51, the surgical apparatus further comprising:

a body portion having first and second levers pivotally secured to the body portion, wherein the first lever is a first color to indicate its connection with a first needle, and the second lever is a second color, different than the first color, to indicate its connection with a second needle.

10. A surgical apparatus in accordance with claim 51, the surgical apparatus further comprising

a body portion having first and second levers pivotally secured to the body portion, wherein the first and second levers are mounted to a distal end of the body portion.

11. (Cancelled).

12. A surgical apparatus for closing a wound, the surgical apparatus comprising:

a tongue member having a distal section insertable into a wound; and

a face opposing the distal section of the tongue member and separated from the distal section of the tongue member by a gap, the face having an area large enough to impede further insertion of the apparatus into the wound, further comprising a guide wire tube disposed through an elongate body assembly, a distal end of the guide wire tube being disposed adjacent a distal opening of the tongue member.

13. The surgical apparatus of claim 12 wherein the guide wire tube includes an opening spaced proximally the distal end thereof.

14 – 19. (Cancelled)

20. The surgical apparatus of claim 51, further comprising:

a body portion having a distal end and a proximal end;

a tubular portion having a distal end and a proximal end, the proximal end of the tubular portion attached to the distal end of the body portion, a distal end of the tubular portion positioned proximally of said window; and

a lever having a distal end and a proximal end, the distal end of the lever operatively coupled to the distal end of the body portion, wherein the body portion includes a longitudinal

axis and the lever includes a longitudinal axis, and further wherein the longitudinal axis of the lever is parallel to the longitudinal axis of the body portion in a closed position of the lever.

21. The surgical apparatus of claim 20 wherein the lever is actuable to a position where the longitudinal axis of the lever is askew from the longitudinal axis of the body portion.

22. (Cancelled)

23. The surgical apparatus of claim 51, further comprising:

a body portion having a distal end and a proximal end;

a tubular portion having a distal end and a proximal end, the proximal end of the tubular portion attached to the distal end of the body portion, a distal end of the tubular portion positioned proximally of said window; and,

a lever having a distal end and a proximal end, the distal end of the lever operatively coupled to the distal end of the body portion, wherein the lever is pivotally mounted to the body portion, further comprising a link connected at a first end to the lever and at a second end to a slidable member within the body portion.

24. The surgical apparatus of claim 23 wherein movement of the proximal end of the lever towards the proximal end of the body portion forces the slidable member to move towards the distal end of the body portion.

25. The surgical apparatus of claim 24 further comprising a drive block, wherein the slidable member cooperates with the drive block to move the drive block correspondingly with the slidable member.

26. The surgical apparatus of claim 25 wherein the slidable member is a locking collar which surrounds a reduced diameter portion of the drive block.

27. The surgical apparatus of claim 25 wherein the drive block is biased proximally by a spring.

28. The surgical apparatus of claim 25 wherein the drive block includes a longitudinal opening for frictionally receiving a proximal end of a drive tube.

29. The surgical apparatus of claim 24 wherein the proximal end of the lever is biased away from the proximal end of the body portion.

30. The surgical apparatus of claim 23 wherein movement of the proximal end of the lever away from the proximal end of the body portion forces the slidable member to move towards the distal end of the body portion.

31. The surgical apparatus of claim 30 wherein the slidable member is a needle driver.

32. The surgical apparatus of claim 31 further comprising a needle in the tubular portion, the needle movable in response to movement of the needle driver.

33. The surgical apparatus of claim 31 wherein the lever is a first lever, the link is a first link, and the needle driver is a first needle driver, the surgical apparatus further comprising a second lever having a proximal end and a distal end, the distal end of the second lever operatively coupled to the distal end of the body portion, a second link connected at a first end to the second lever and at a second end to a second needle driver within the body portion.

34. The surgical apparatus of claim 33 wherein the second needle driver is positioned proximal to the first needle driver.

35. The surgical apparatus of claim 34 wherein first needle driver receives a first needle, and the first needle driver has a longitudinal opening dimensioned to allow a second needle to pass through the first needle driver freely to the second needle driver.

36. The surgical apparatus of claim 35 wherein the second needle driver receives the

second needle.

37. The surgical apparatus of claim 36 wherein the second needle driver includes an opening dimensioned to frictionally receive the second needle, the opening for receiving the second needle being smaller than the longitudinal opening in the first needle driver for passing the second needle.

38. The surgical apparatus of claim 34 wherein the first needle driver includes another longitudinal opening dimensioned to frictionally receive the first needle, wherein the longitudinal opening receiving the first needle is smaller than the longitudinal opening for passing the second needle.

39. The surgical apparatus of claim 23 wherein the slidable member includes a tab with a hole, the second end of the lever surrounding the tab and connected to the tab via a link pin inserted through the hole and through the second end of the lever.

40- 41. (Cancelled).

42. A surgical apparatus in accordance with claim 51, the surgical apparatus further comprising:

a body portion having a distal end and a proximal end;

a tubular portion having a distal end and a proximal end, the proximal end of the tubular portion attached to the distal end of the body portion; and,

a lever having a distal end and a proximal end, the distal end of the lever operatively coupled to the distal end of the body portion, wherein the lever is a first lever, the surgical apparatus further comprising a second lever having a proximal end and a distal end, the distal end of the second lever operatively coupled to the distal end of the body portion.

43. The surgical apparatus of claim 42 wherein the second lever is angularly displaced on the body portion from the first lever.

44. The surgical apparatus of claim 43 wherein the second lever is placed less than 180 degrees from the first lever.

45. The surgical apparatus of claim 42 wherein the first lever includes a first color and the second lever includes a second color, different than the first color.

46-50. (Cancelled)

51. A surgical apparatus comprising a tip, the tip having a longitudinal axis, a distal end, and a proximal end, the tip further comprising:

a window for receiving tissue;

a first wall at a proximal end of the window, the first wall disposed at an angle to the longitudinal axis, the angle selected to impede insertion of the tip into a wound; and,

a second wall disposed at an angle to the longitudinal axis at a distal end of the window, further comprising a ferrule holder, the ferrule holder including the second wall, further comprising a tongue extending between the first and second walls, wherein the ferrule holder includes projections receivable within grooves of the tongue for retaining the ferrule holder on the tongue.

52. The surgical apparatus of claim 51 wherein the tongue includes a lip which wraps around a distal end of the ferrule holder for further retaining the ferrule holder on the tongue.

53. A tip for a surgical apparatus, the tip having a longitudinal axis, a distal end, and a proximal end, the tip further comprising:

a window for receiving tissue;

a first wall at a proximal end of the window, the first wall disposed at an angle to the longitudinal axis, the angle selected to impede insertion of the tip into a wound; and,

a second wall disposed at an angle to the longitudinal axis at a distal end of the window, further comprising a tongue having an opening through a portion of a distal tongue section, a base of the tongue forming a bottom portion of the window.

54. The tip of claim 53 wherein a distance from the first wall to the second wall at a bottom portion of the window is less than a distance from the first wall to the second wall at a top portion of the window.

55. The tip of claim 53 wherein a proximal end of the tongue includes a T-shaped extension.

56. The tip of claim 55 further comprising a face, the face including the first wall, the face positioned on a proximal portion of the tongue and distally of the T-shaped extension.

57. The tip of claim 56 wherein the face is retained on the tongue by a snap-fit connection.

58. The tip of claim 53 wherein the tongue includes a longitudinal opening having a proximal end and a distal end, the distal end of the longitudinal opening including an exit opening positioned proximally of the distal end of the tip.

59-62. (Cancelled)

63. (Withdrawn) A tip for a surgical apparatus, the tip having a longitudinal axis, a distal end, and a proximal end, the tip further comprising:

a window for receiving tissue;

a first wall at a proximal end of the window, the first wall disposed at an angle to the longitudinal axis, the angle selected to impede insertion of the tip into a wound; and,

a second wall disposed at an angle to the longitudinal axis at a distal end of the window, further comprising a face, the face including the first wall, wherein the face includes a pair of longitudinal openings substantially parallel with the longitudinal axis of the tip, further comprising a ferrule holder, the ferrule holder including the second wall and a pair of recesses for receiving ferrules, the pair of recesses longitudinally aligned with the pair of longitudinal openings in the face, further comprising a pair of ferrules received within the pair of recesses, proximal ends of the ferrules facing the window, and distal ends of the ferrules connected to lengths of suture material.

64. (Withdrawn) A tip for a surgical apparatus, the tip having a distal end, a proximal end, and a longitudinal axis, the tip further comprising:

a jaw assembly having an upper jaw and a lower jaw, a proximal end of the upper jaw connected to a proximal end of the lower jaw; and,

a jaw closer longitudinally movable relative to the jaw assembly to move a distal end of the lower jaw towards a distal end of the upper jaw when the jaw closer is moved towards the distal end of the tip.

65. (Withdrawn) The tip of claim 64 wherein the jaw closer is passable beneath the lower jaw.

66. (Withdrawn) The tip of claim 64 wherein the distal end of the lower jaw receives a suture securing element, wherein, when distal ends of the upper and lower jaws are moved towards each other, the suture securing element is crimped between the upper jaw and lower jaw.

67. (Withdrawn) The tip of claim 66 wherein the lower jaw includes a pair of arms for receiving the suture securing element.

68. (Withdrawn) The tip of claim 67 wherein the lower jaw further includes a cutting blade proximal the pair of arms.

69. (Withdrawn) The tip of claim 66 comprising a cutting blade.

70. (Withdrawn) The tip of claim 69 wherein the upper jaw includes a backstop for abutting with the cutting blade.

71. (Withdrawn) The tip of claim 64 wherein a distal end of the jaw closer includes a camming surface for abutting a camming edge of one of the upper and lower jaws.

72. (Withdrawn) The tip of claim 64 further comprising a longitudinal opening for receiving a suture securing element.

73. (Withdrawn) The tip of claim 72 further comprising an end cap at the distal end of the tip, the end cap including the longitudinal opening.

74 - 79. (Cancelled)

80. (Withdrawn) An obturator assembly and cannula for locating a suturing instrument in a vessel, the obturator assembly and cannula comprising:

a flexible tubular member having a first longitudinal bore for receiving a guide wire;

a flexible outer sleeve having a second longitudinal bore encircling the flexible tubular member, the outer sleeve having an aspiration port in a side of the second longitudinal bore disposed between a proximal and a distal end thereof; and,

a cannula having a third longitudinal bore sized for surrounding the flexible outer sleeve.

81. (Withdrawn) The obturator assembly and cannula of claim 80 wherein the tubular member comprises a distal end that is more flexible than a proximal end.

82. (Withdrawn) The obturator assembly and cannula of claim 80 wherein the flexible tubular member is longer than the outer sleeve.

83. (Withdrawn) The obturator assembly and cannula of claim 80 wherein a proximal end of the assembly has a valve assembly with fittings.

84. (Withdrawn) The obturator assembly and cannula of claim 83 wherein one fitting in the valve assembly is in fluid communication with the second longitudinal bore allowing blood aspiration to positively indicate proper positioning of the surrounding cannula.

85. (Withdrawn) A single use kit for closing an opening in a vessel comprising:

a surgical apparatus for suturing the opening; and,

a combination crimper and cutter for securing a suture and cutting its ends.

86. (Withdrawn) The single use kit of claim 85 further comprising a cannula.

87. (Withdrawn) The single use kit of claim 85 wherein the surgical apparatus comprises a tip having a longitudinal axis, a distal end, and a proximal end, the tip further comprising:

a gap for receiving tissue;

a first wall at a proximal end of the gap, the first wall having a pair of longitudinal openings for receiving needles; and,

a second wall at a distal end of the window, the second wall having a pair of ferrule recesses for receiving ferrules.

88. (Withdrawn) The single use kit of claim 85 wherein the combination crimper and cutter comprises a tip having a distal end, a proximal end, and a longitudinal axis, the tip further comprising:

a jaw assembly having an upper jaw and a lower jaw, a proximal end of the upper jaw connected to a proximal end of the lower jaw; and,

a jaw closer longitudinally movable relative to the jaw assembly to move a distal end of the lower jaw towards a distal end of the upper jaw when the jaw closer is moved towards the distal end of the tip.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None

CONCLUSION

The rejections of the claims are in error and should be reversed.

Please charge any fees relating to the filing of this Appeal Brief, including extensions, to Deposit account 06-1130, maintained by the Applicant's attorneys.

Respectfully submitted,
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